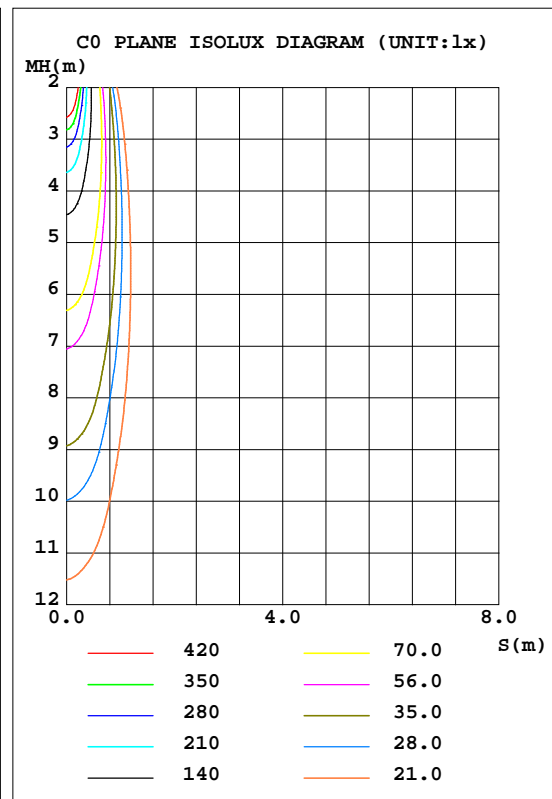
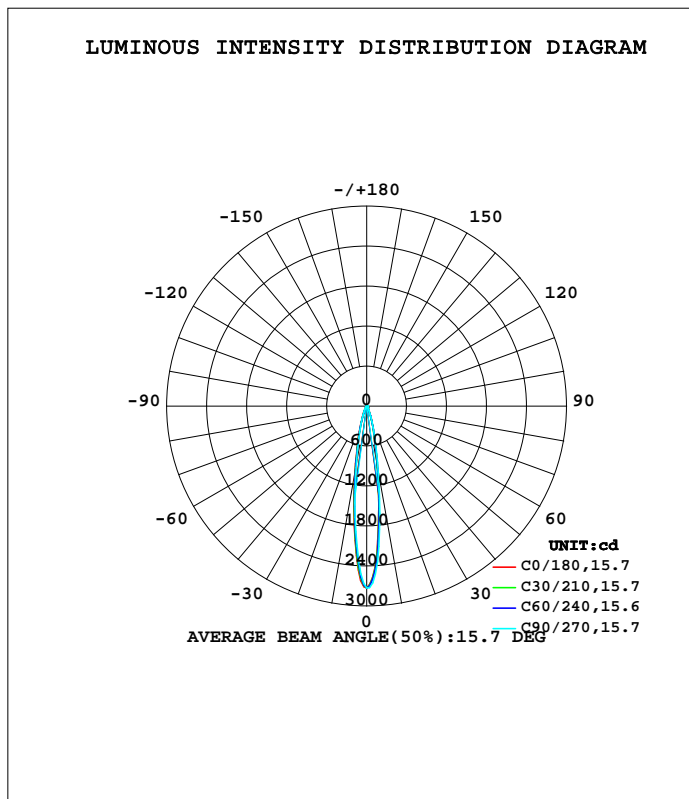


**LUMINAIRE PHOTOMETRIC TEST REPORT**

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm		
NAME: 486738-MR16-3W-3000K-15°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

DATA OF LAMP		PHOTOMETRIC DATA Eff: 106.88 lm/W			
MODEL		I <sub>max</sub> (cd)	2741	S/MH(C0/180)	0.28
NOMINAL POWER(W)	--	LOR(%)	100.0	S/MH(C90/270)	0.26
RATED VOLTAGE(V)	--	TOTAL FLUX(lm)	380.25	η UP, DN(C0-180)	0.0,49.7
NOMINAL FLUX(lm)	380.255	CIE CLASS	DIRECT	η UP, DN(C180-360)	0.0,50.3
LAMPS INSIDE	1	η up(%)	0.0	CIBSE SHR NOM	0.00
TEST VOLTAGE(V)	--	η down(%)	100.0	CIBSE SHR MAX	1.00



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2022-05-31

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
 Humidity:65.0%  
 Test Distance:9.000m [K=1.0000]  
 Remarks:

**ZONAL FLUX DIAGRAM**

**ZONAL FLUX DIAGRAM:**

$\gamma$	C0	C45	C90	C135	C180	C225	C270	C315	$\gamma$	$\Phi$ zone	$\Phi$ total	%lum,lamp
10	946.3	949.9	1016	994.8	1029	978.6	938.6	1001	0- 10	156.7	156.7	41.2,41.2
20	211.1	204.1	221.2	197.0	224.5	208.3	213.7	212.2	10- 20	130.0	286.6	75.4,75.4
30	57.50	53.47	58.23	50.04	58.06	48.75	56.23	50.97	20- 30	50.40	337.0	88.6,88.6
40	18.51	18.81	19.23	17.78	18.80	16.67	17.49	17.57	30- 40	19.48	356.5	93.8,93.8
50	10.18	10.52	10.48	10.39	10.82	9.877	9.987	9.996	40- 50	10.41	366.9	96.5,96.5
60	6.092	6.206	5.766	6.229	6.505	6.102	5.471	6.126	50- 60	7.188	374.1	98.4,98.4
70	3.520	3.094	1.680	3.140	3.750	3.128	1.730	3.365	60- 70	4.426	378.6	99.6,99.6
80	1.267	0.1250	0.0239	0.1047	1.405	0.0946	0.0179	0.1912	70- 80	1.571	380.1	100,100
90	0	0	0	0	0	0	0	0.0023	80- 90	0.1291	380.3	100,100
100									90-100			
110									100-110			
120									110-120			
130									120-130			
140									130-140			
150									140-150			
160									150-160			
170									160-170			
180									170-180			
DEG	LUMINOUS INTENSITY:cd									UNIT:lm		

Conical surface Flux(90deg): 362.22 lm

%lum = 95.3%  
%lamp = 95.3%

Conical surface Flux(120deg): 374.13 lm

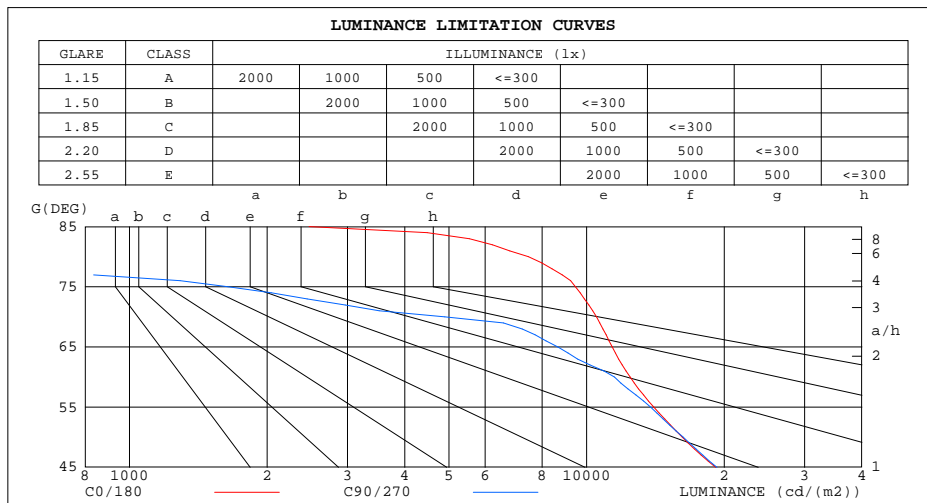
%lum = 98.4%  
%lamp = 98.4%

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-05-31

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

**LUMINANCE LIMITATION CURVES**

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm		
NAME: 486738-MR16-3W-3000K-15°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:



LUMINANCE cd/(m2)		
G(DEG)	C0/180	C90/270
85	2470	0
80	7455	137
75	9458	1642
70	10517	4901
65	11378	8647
60	12451	11507
55	14033	13817
50	16192	16267
45	19148	19274

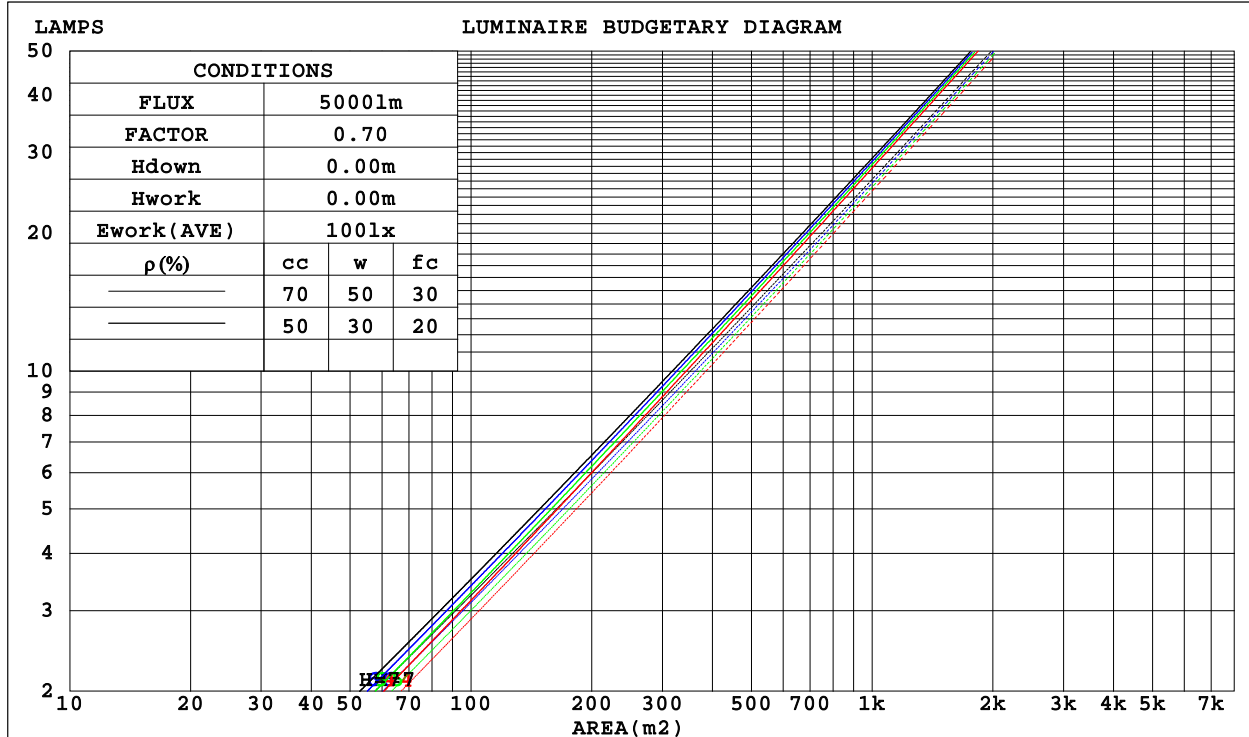
C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-05-31

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

**CU AND LUMINAIRE BUDGETARY ESTIMATE DIAGRAM**

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm		
NAME: 486738-MR16-3W-3000K-15°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

ρcc	80%			70%			50%			30%			10%			0
ρw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
ρfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Coefficients of Utilization(CU)									
0.0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	.00
1.0	1.12	1.10	1.09	1.10	1.09	1.07	1.06	1.05	1.04	1.03	1.02	1.01	.99	.98	.98	.96
2.0	1.07	1.04	1.01	1.05	1.02	.00	1.02	.00	.98	.99	.97	.96	.96	.95	.94	.92
3.0	1.02	.98	.95	1.01	.97	.94	.98	.95	.93	.96	.93	.91	.94	.92	.90	.89
4.0	.98	.94	.90	.97	.93	.90	.95	.91	.89	.93	.90	.88	.91	.89	.87	.86
5.0	.94	.90	.86	.93	.89	.86	.91	.88	.85	.90	.87	.85	.89	.86	.84	.83
6.0	.91	.86	.83	.90	.86	.83	.89	.85	.82	.87	.84	.82	.86	.83	.81	.80
7.0	.88	.83	.80	.87	.83	.80	.86	.82	.80	.85	.82	.79	.84	.81	.79	.78
8.0	.85	.81	.78	.85	.81	.78	.84	.80	.77	.83	.80	.77	.82	.79	.77	.76
9.0	.83	.79	.76	.82	.78	.76	.81	.78	.75	.81	.77	.75	.80	.77	.75	.74
10.0	.80	.76	.74	.80	.76	.74	.79	.76	.73	.79	.76	.73	.78	.75	.73	.72



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2022-05-31

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
 Humidity:65.0%  
 Test Distance:9.000m [K=1.0000]  
 Remarks:

**WEC AND CCEC**

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm		
NAME: 486738-MR16-3W-3000K-15°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Wall Exitance Coefficients(WEC)									
0.0																
1.0	.145	.082	.026	.138	.079	.025	.125	.072	.023	.114	.066	.021	.104	.060	.019	
2.0	.135	.074	.023	.129	.071	.022	.119	.066	.021	.110	.061	.019	.101	.057	.018	
3.0	.126	.067	.020	.121	.065	.019	.112	.061	.019	.104	.057	.018	.097	.054	.017	
4.0	.117	.061	.018	.113	.059	.018	.106	.056	.017	.099	.053	.016	.093	.051	.015	
5.0	.110	.056	.016	.107	.055	.016	.100	.052	.015	.095	.050	.015	.089	.048	.014	
6.0	.103	.052	.015	.101	.051	.015	.095	.049	.014	.090	.047	.014	.086	.045	.013	
7.0	.098	.048	.014	.095	.047	.014	.091	.046	.013	.086	.044	.013	.082	.043	.013	
8.0	.093	.045	.013	.091	.045	.013	.086	.043	.012	.083	.042	.012	.079	.041	.012	
9.0	.088	.043	.012	.086	.042	.012	.083	.041	.012	.079	.040	.011	.076	.039	.011	
10.0	.084	.040	.011	.082	.040	.011	.079	.039	.011	.076	.038	.011	.073	.037	.011	

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio						Ceiling Cavity Exitance Coefficients(CCEC)									
0.0	.190	.190	.190	.163	.163	.163	.111	.111	.111	.064	.064	.064	.020	.020	.020	
1.0	.169	.158	.147	.144	.135	.127	.099	.093	.088	.057	.054	.051	.018	.017	.017	
2.0	.151	.133	.117	.130	.114	.101	.089	.079	.071	.051	.046	.041	.016	.015	.013	
3.0	.137	.113	.095	.117	.098	.082	.080	.068	.058	.046	.040	.034	.015	.013	.011	
4.0	.124	.098	.078	.107	.085	.068	.073	.059	.048	.042	.035	.028	.014	.011	.009	
5.0	.114	.086	.065	.098	.074	.057	.067	.052	.040	.039	.030	.024	.013	.010	.008	
6.0	.105	.076	.055	.090	.066	.048	.062	.046	.034	.036	.027	.020	.012	.009	.007	
7.0	.097	.068	.047	.084	.059	.041	.058	.041	.029	.034	.024	.017	.011	.008	.006	
8.0	.091	.061	.041	.078	.053	.035	.054	.037	.025	.031	.022	.015	.010	.007	.005	
9.0	.085	.055	.035	.073	.048	.031	.051	.034	.022	.029	.020	.013	.010	.007	.004	
10.0	.080	.050	.031	.069	.044	.027	.048	.031	.019	.028	.018	.011	.009	.006	.004	

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2022-05-31

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
 Humidity:65.0%  
 Test Distance:9.000m [K=1.0000]  
 Remarks:

**UGR(Unified Glare Rating) Table**

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm										
NAME: 486738-MR16-3W-3000K-15°					TYPE:			WEIGHT:		
SPEC.:					DIM.:			SERIAL No.:		
MFR.:					SUR.:35mm			Shielding Angle:		
ceiling/cavity	0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
walls	0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions	Viewed crosswise					Viewed endwise				
x = 2H y = 2H	15.8	16.5	16.0	16.6	16.8	15.7	16.4	15.9	16.5	16.7
3H	16.7	17.3	16.9	17.5	17.7	16.0	16.7	16.3	16.9	17.1
4H	17.1	17.7	17.3	17.9	18.1	16.0	16.6	16.3	16.8	17.0
6H	17.3	17.9	17.6	18.1	18.4	15.9	16.5	16.2	16.7	17.0
8H	17.3	17.9	17.6	18.1	18.4	15.9	16.4	16.2	16.7	16.9
12H	17.3	17.9	17.6	18.1	18.4	15.8	16.4	16.1	16.6	16.9
4H 2H	16.1	16.7	16.4	16.9	17.2	16.0	16.7	16.3	16.9	17.1
3H	17.2	17.7	17.5	18.0	18.3	16.5	17.0	16.8	17.3	17.5
4H	17.7	18.2	18.0	18.5	18.8	16.4	16.9	16.7	17.2	17.5
6H	18.0	18.4	18.3	18.7	19.1	16.3	16.7	16.7	17.1	17.4
8H	18.0	18.4	18.4	18.8	19.2	16.2	16.7	16.6	17.0	17.4
12H	18.0	18.4	18.4	18.8	19.1	16.2	16.6	16.6	16.9	17.3
8H 4H	17.6	18.0	18.0	18.4	18.8	16.4	16.8	16.8	17.2	17.5
6H	17.9	18.3	18.4	18.7	19.1	16.3	16.6	16.7	17.0	17.4
8H	18.0	18.3	18.5	18.7	19.2	16.2	16.5	16.7	16.9	17.4
12H	18.0	18.3	18.5	18.7	19.2	16.2	16.4	16.6	16.9	17.3
12H 4H	17.6	18.0	18.0	18.3	18.7	16.4	16.7	16.8	17.1	17.5
6H	17.9	18.2	18.3	18.6	19.0	16.2	16.5	16.7	17.0	17.4
8H	17.9	18.2	18.4	18.6	19.1	16.2	16.4	16.6	16.9	17.4
Variations with the observer position at spacings:										
S = 1.0H	+ 0.5 / - 0.7					+ 0.8 / - 1.1				
1.5H	+ 0.8 / - 0.5					+ 1.3 / - 0.9				
2.0H	+ 0.7 / - 0.7					+ 1.1 / - 1.0				

CIE Pub.117, 380.3 lm Total Lamp Luminous Flux Corrected (8log(F/F0) = -3.4)  
Area: 0.001 m2

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-05-31

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

**UTILIZATION FACTORS TABLE**

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm		
NAME: 486738-MR16-3W-3000K-15°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

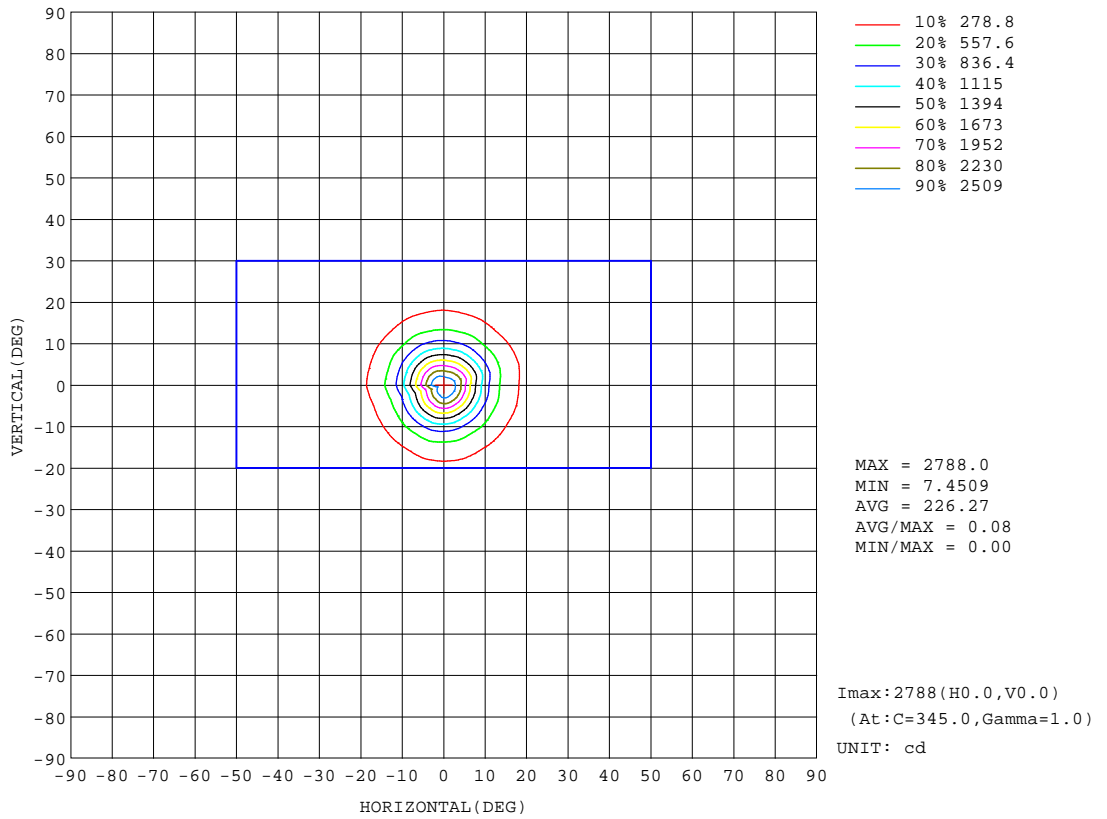
REFLECTANCE										
Ceiling	0.8	0.8	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0
Walls	0.7	0.5	0.3	0.7	0.5	0.3	0.7	0.5	0.3	0
Working plane	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0
ROOM INDEX	UTILIZATION FACTORS(PERCENT) k(RI) x RCR = 5									
k = 0.60	88	81	78	87	81	78	86	81	77	74
0.80	95	89	85	94	89	85	93	88	85	81
1.00	99	94	90	98	93	90	97	93	89	85
1.25	103	98	95	102	97	94	100	96	93	89
1.50	106	101	98	105	100	97	102	99	96	92
2.00	109	104	101	107	103	100	104	101	99	94
2.50	110	106	103	109	105	103	106	103	101	95
3.00	112	108	106	110	107	105	107	104	102	96
4.00	114	111	109	112	109	107	108	106	105	98
5.00	115	113	111	113	111	109	109	108	106	99
ROOM INDEX	UF(total)									Direct
According to DIN EN 13032-2 2004			Suspended				SHRNOM = 1.25			

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-05-31

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

**ISOCANDELA DIAGRAM**

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm		
NAME: 486738-MR16-3W-3000K-15°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:



C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2022-05-31

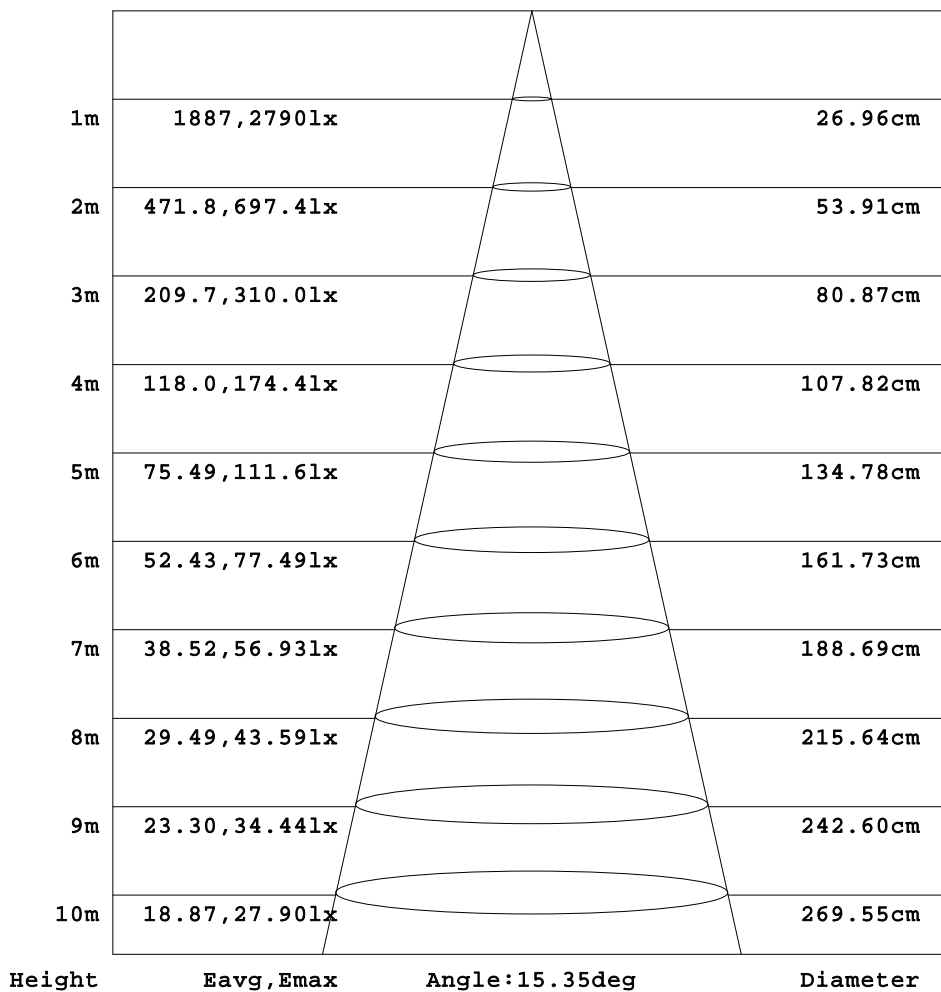
γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
 Humidity:65.0%  
 Test Distance:9.000m [K=1.0000]  
 Remarks:



**AAI Figure**

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm		
NAME: 486738-MR16-3W-3000K-15°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

Flux out:117.1 lm



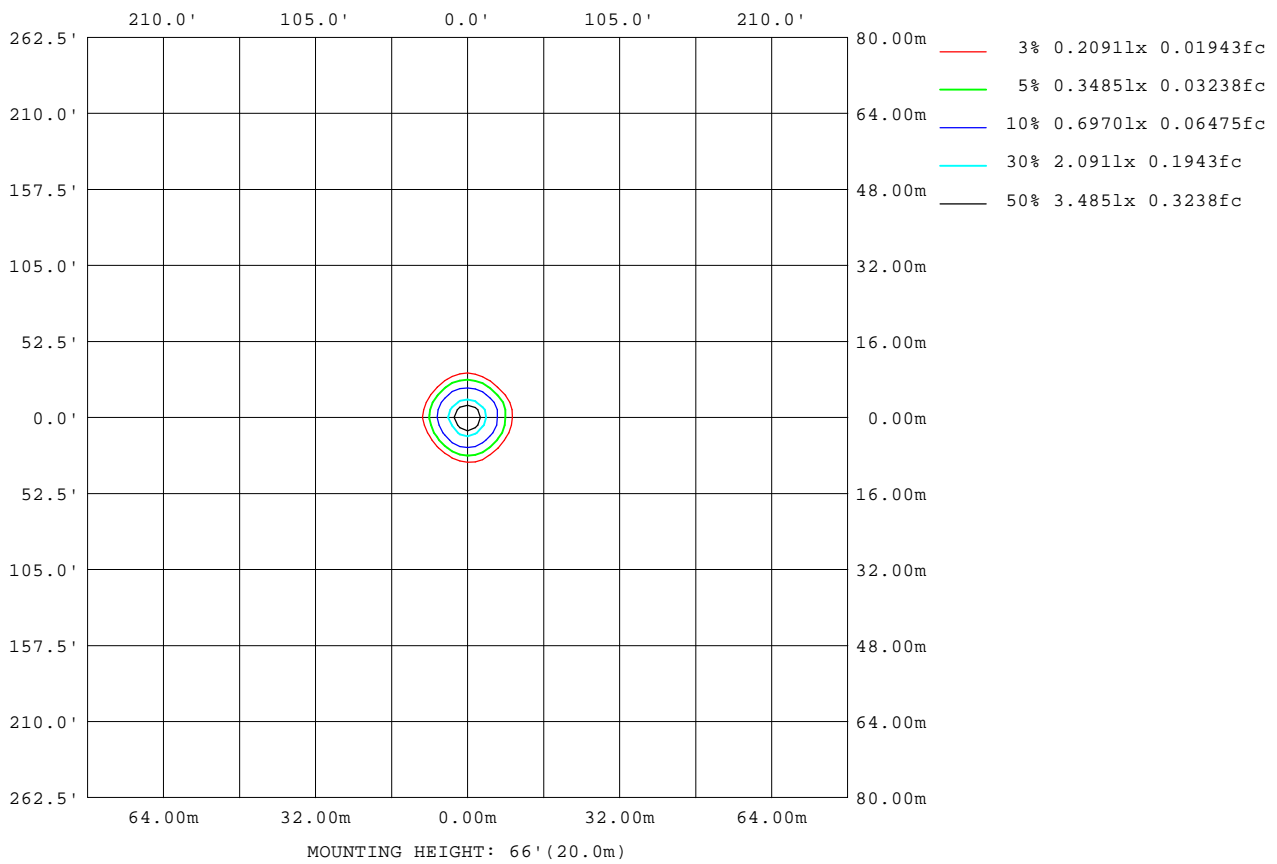
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-05-31

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

**ISOLUX DIAGRAM**

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm		
NAME: 486738-MR16-3W-3000K-15°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-05-31

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

LED Avg.L Report

Test:U:11.931V I:0.4130A P:3.5579W PF:0.7221 Freq:60.00Hz Lamp Flux:380.255x1 lm		
NAME: 486738-MR16-3W-3000K-15°	TYPE:	WEIGHT:
SPEC.:	DIM.:	SERIAL No.:
MFR.:	SUR.:35mm	Shielding Angle:

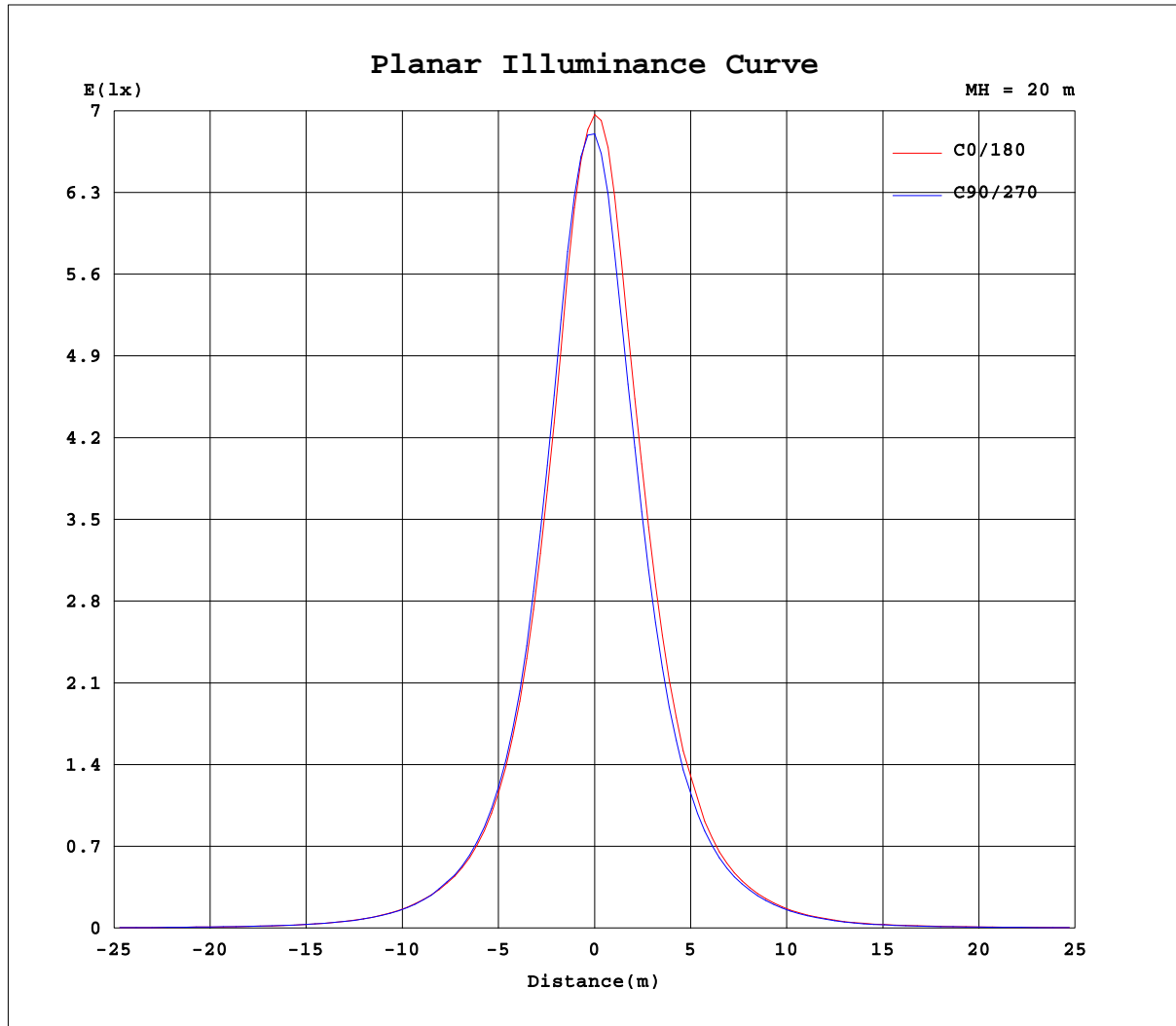
AvgL	cd/m2
L_0~180(65)av	11497
L_0~180(75)av	9599
L_0~180(85)av	3154
L_90~270(65)av	8602
L_90~270(75)av	1439
L_90~270(85)av	0
L_45(65)av	11106
L_45(75)av	4995
L_45(85)av	80

Standard: GB/T 29293-2012

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2022-05-31

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
Humidity:65.0%  
Test Distance:9.000m [K=1.0000]  
Remarks:

Planar Illuminance Curve



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2022-05-31

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-3000H\_V1 SYSTEM V2.00.411  
Humidity: 65.0%  
Test Distance: 9.000m [K=1.0000]  
Remarks:



